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Regulating Social Networking Sites: Facebook, Online Behavioral Advertising, Data Protection Laws and Power

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I. INTRODUCTION

Social networking sites (“SNS”) have transformed modern lives in more ways than one. We now have instant, global and seamless connectivity with one another for various purposes, such as dating,¹ improving our professional profiles² and maintaining friendships with our existing social networks.³ SNS are web-based social communities of users with similar interests or affiliations who interact with one another by sharing photos or images, exchanging text or instant messages, playing games and so on.⁴ As SNS have proliferated over the years,⁵ they have also raised complex legal, regulatory and policy issues, such as data protection and privacy.⁶ For example, the data handling practices and policies of Facebook - one of the most popular global SNS - have attracted several complaints over the years.⁷ In recent times, the American privacy pressure group, the Electronic Privacy Information Centre, filed a complaint with the Federal Trade Commission to ask the watchdog to investigate Facebook’s use of Facebook customer data in its controversial “emotion contagion” experiment.⁸ Facebook’s data handling practices and policies have also been scrutinized by a number of data privacy regulators including the Data Protection Commissioner of Ireland.⁹ At policy level, governments across the globe are devising strategies and policies to support and promote the growth of the digital economy by, for example, reducing the legal and regulatory obstacles which prevent digital platforms, such as SNS, from prospering.¹⁰

Debates about regulating online environments are dominated by the Lessigian idea of regulation through law, norms, market and “code”.¹¹ From this vantage point, questions about cyberspace regulation narrowly focus on which regulatory modality achieves what function. Recently, some scholars have argued against the adoption of a “tools-only” perspective when

¹ This article is based on my doctoral thesis. See A. Vranaki, *Rethinking Relations and Regimes of Power in Online Social Networking Sites: Tales of Control, Strife, and Negotiations in Facebook and YouTube* (DPhil Thesis, University of Oxford, 2013). For an example of a dating websites, see, <https://uk.match.com/unlogged/landing/2016/06/02/hpv-belowthefold-3steps-geo-psc-bowling?kclid=6740>.

² E.g., <https://www.linkedin.com/>.

³ E.g., <https://www.facebook.com/>.

⁴ See N. B. Ellison, “Social network sites: Definition, history, and scholarship” (2007) 13(1) *Journal of Computer-Mediated Communication* 210 for a different definition of SNS.

⁵ A. Perrin, “Social Media Usage: 2005-2015” (2015), <http://www.pewinternet.org/2015/10/08/social-networking-usage-2005-2015/>.

⁶ E.g., I. Brown and C. Marsden, *Regulating Code: Good Governance and Better Regulation in the Information Age* (2013) 117; L. Edwards, “Privacy, Law, Code and Social Networking Sites” in *Research Handbook On Governance Of The cyberspace*, ed. I. Brown (2013) 309.

⁷ E.g., http://www.alexa.com/topsites/category/Computers/Internet/On_the_Web/Online_Communities/Social_Networking. See, Edwards, *supra* note 6 for the data privacy issues raised by SNS.

⁸ E.g., S. Gibbs, “Privacy Watchdog Files Complaint Over Facebook Emotion Experiment” (The Guardian, 2014), <https://www.theguardian.com/technology/2014/jul/04/privacy-watchdog-files-complaint-over-facebook-emotion-experiment>

⁹ See Office of the Data Protection Commissioner of Ireland, Audit Report of Facebook Ireland Ltd, <http://www.dataprotection.ie/docs/Facebook-Ireland-Audit-Report-December-2011/1187.htm>.

¹⁰ E.g., https://ec.europa.eu/priorities/digital-single-market_en; <https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2016/march/fact-sheet-key-barriers-digital-trade>.

¹¹ L. Lessig, *Code: Version 2.0* (2006) at 5.

analyzing cyberspace regulation.¹² Rather, they contend that we should also pay attention to how multiple actors interact with each other and such tools in context.¹³ However, these perspectives are still tied to regulatory concepts, such as pre-determined regulatory modalities and a top-down approach to regulation, which restrict analysis.¹⁴ Wider matters, such as the potentially multi-directional power effects generated in online platforms or resistance to regulation, are not examined in detail. As analyzed later, these are central matters to take into account when regulating online environments.

Consequently, in this paper, I argue that we need to move away from the dominant cyber-regulatory lens to a conceptual lens of power that combines specific ideas about power from Actor-Network Theory and Michel Foucault (“ANT-Foucauldian Power Lens”) in order to (a) understand more fully the complexity, dynamism and precarity of the regulatory space in online environments when legal rights are at stake and (b) understand the complex and multiple power effects (including regulatory effects) generated when a legal right is protected or violated in digital platforms. Power effect means any enabling, constraining and productive force which is generated when heterogeneous technological (for example, algorithms), social (for example, Facebook users’ resistance practices) and legal *actants* (for example, legal reasoning) are associated in specific ways, for some time, to extract compliance from other *actants* that can resist such attempts.¹⁵ “*Actants*” means “...something that acts or to which activity is granted by others” and encompass human and non-human actors.¹⁶

This central argument of this article is not only about **heterogeneity** but also about **locality**. It should not be assumed that information and communications flows are similar in all online environments without empirical enquiry. Despite the fact that digital environments, such as SNS and other Web 2.0 sites, share commonalities including user-centric platforms, increased mass user-generated content, and user-friendly interfaces, they also have their own local specificities which need to be accounted for when tackling the question of regulation. For example, Web 2.0 platforms may vary from one another for many reasons including different interaction modes. Likewise, web 2.0 platforms have “...large and dynamic graph” structures that differ from Web 1.0 platforms’ bow tie structures.¹⁷ Consequently, when regulators, law-makers, law enforcers and policy-makers attempt to regulate online platforms, they need to pay attention to the parochial and heterogeneous specificities of such platform in order to regulate them effectively.

In order to support the overall argument of this article, I use selected empirical findings on Facebook advertisements derived from my recent qualitative socio-legal case study of Facebook when data protection and privacy laws are at stake. This analysis generates the following three additional arguments.

¹² E.g., C. Raab and P. De Hert, “Tools for Technology Regulation: Seeking Analytical Approaches Beyond Lessig and Hood” in *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Features*, ed. R. Brownsword and K. Yeung (2008) 263

¹³ E.g., *id*; A.D. Murray, “Conceptualizing the post-regulatory (cyber) state” in *Regulating Technologies: Legal Futures, Regulatory Frames and Technological Fixes*, ed. R. Brownsword and K. Yeung (2008) 287.

¹⁴ Vranaki, *supra* note 1 at 40ff.

¹⁵ *Id* at 5.

¹⁶ B. Latour, “On actor-network theory: a few clarifications” (1996) *Soziale Welt* 369, at 376.

¹⁷ V. Gottfried and S. Hagemann *Unleashing Web 2.0: From concepts to creativity* (2012), at 12.

Firstly, I contend that multiple and diverse social, technological and legal *actants* are brought together when personal data rights are at stake in the context of Facebook advertisements. As an example, the following *actants* are often involved when personal data rights are at stake in Facebook:

- Algorithms embodied in programming languages executing specific functions, such as blocking targeted advertisements and Facebook users' interactions;¹⁸
- Data protection in-house and external lawyers with their networks of data protection law knowledge, legal skills (e.g. drafting privacy policies) and commercial awareness (e.g. how other SNS discharge their data protection compliance obligations); and
- Facebook users' interactions with brands, products and services.

Such connections can often be rendered more obdurate through their links with "materialities" (for example, hyperlinks) or can fall apart (for example, resistance by Facebook users). This context-specific assemblage is complex as it is formed of social, technological and legal *actants*. It is also dynamic as new and old *actants* can join and leave the connective chain. Consequently, the regulatory space is far more complex and dynamic than previously thought.

Secondly, I argue that the following five power effects, namely, (1) legalizing the processing of Facebook users' personal data (or information relating to an "identified" or "identifiable natural person") for targeted advertising, (2) constituting Facebook users as autonomous individuals, (3) mass "dataveillance", (4) commodifying Facebook users, and (5) enacting particular versions of the marketplace, are generated from the local and varied associations which are involved when personal data rights are at stake in the context of advertisements. Here, I also underline how certain power effects, such as mass "dataveillance", can occasionally be ruptured as Facebook users resist by installing technologies which block Facebook advertisements.

Thirdly, I contend that the elicitation of valid consent in Facebook can often be a "perfunctory" and banal process which is reduced to mundane actions, such as button clicks. Here, I question to what extent Facebook users can be said to have provided valid consent in accordance with the applicable laws.

The remainder of this article is divided into seven sections. In section II, I critically evaluate the main academic writings on cyberspace regulation and argue that we need to move away from the dominant "regulatory" lens to my ANT-Foucauldian Power Lens in order to capture the potentially complex power effects generated in SNS when legal rights are at risk. I, then, present the main ideas of my ANT-Foucauldian Power Lens in section III. In section IV, I explain the methodology of this article. In section V, I provide a general overview of Facebook advertisements. In section VI, I outline the European data protection laws which regulate Facebook's data handling practices and policies in the context of Facebook targeted advertisements in order to anchor the analysis which is advanced in the remainder of this article. In section VII, I apply my ANT-Foucauldian Power Lens to analyze the diverse legal, technological, and social *actants*, such as algorithms, programming languages, data protection laws, and social practices which are locally connected with one another in the context of data protection and Facebook advertisements. In section VIII, I build on this relational analysis of Facebook advertisements to explore two power effects generated from Facebook

¹⁸ <https://www.facebook.com/settings?tab=ads§ion=oba&view>.

advertisements, namely, legalizing the processing of new Facebook users' personal data and constituting Facebook users as autonomous individuals. In the final section IX, I analyze three additional power effects generated from other aspects of Facebook advertisements, namely, mass "dataveillance", commodifying Facebook users and enacting particular versions of the marketplace.

II. CYBERSPACE REGULATION: FROM THE "NEW FRONTIER" TO REGULATION TO DYNAMIC REGULATORY SPACES TO POWER EFFECTS

In this section, I present a brief and targeted critical evaluation of the three main themes of the cyberspace regulation literature, namely, regulation by self-regulation only; regulation by law, norms, the market, and "code"; and dynamic regulatory spaces. Based on this analytical evaluation, I argue that we need to move away from the restrictive conceptual lens of regulation to a wider lens of power to analyze the regulation of online platforms.

Earlier debates about cyberspace regulation focused on the idea of cyberspace as a "new frontier" which is distinct from the physical world due to its lack of geographical borders.¹⁹ From this viewpoint, cyberspace can and should only be regulated by self-regulation rather than territorial laws.²⁰ This idea has attracted various criticisms including the rejection of the notion that cyberspace cannot and should not be regulated by offline laws due to its lack of geographical borders.²¹ Such criticisms have led to the second theme in the cyberspace regulation literature, namely, regulation by law, norms, market, and "code" ("CRT").²²

CRT argues that law regulates how individuals act by imposing rules issued by the Sovereign which are backed by sanctions in cases of breach.²³ Norms refer to rules that do not emanate from an official source, such as the legislative branch, but are yet regularly complied with. Unlike law, norms are enforced informally through the expectations of the community. The market regulates through various means, such as price, which constrain and enable access to cyberspace.²⁴ "Code" is the "software and hardware... that make cyberspace what it is" and regulates the behavior of individuals by permitting or preventing actions.²⁵

CRT posits that law, norms, and market can often struggle to regulate virtual worlds.²⁶ For example, law enforcement can often be tricky online due to the lack of physical borders that can increase enforcement costs. However, CRT contends that "code is law" and is the perfect regulatory modality in cyberspace for many reasons including its automatic application which does not depend on centralized or decentralized enforcement.²⁷ CRT argues that law, market, "code", and norms regulate by interacting with one another in varying degrees and

¹⁹ E.g., D.R. Johnson and D. Post, "Law and borders: The rise of law in cyberspace" (1996) Stanford Law Rev. 1367.

²⁰ Johnson and Post, *id.*

²¹ E.g., J. Goldsmith, "Against Cyber-Anarchy" (1998) 65 University of Chicago Law Rev. 1221.

²² CRT stands for cyber-regulatory theory. E.g., Lessig, *supra* note 11 at 4-5, 340.

²³ Lessig, *supra* note 11 at 223, 340.

²⁴ E.g. Lessig, *supra* note 11 at 431

²⁵ *Id.*

²⁶ E.g. Lessig, *supra* note 11 at 122-137.

²⁷ E.g., Lessig, *supra* note 11 at 342.

acting on the individual who is conceived as a “pathetic dot”. From this perspective, regulation flows only in one direction, namely, from the regulatory modality (for example, market) to the regulatee (the dot).

Despite the significance of CRT to the cyberspace regulation literature, CRT has four key weaknesses. Firstly, although cyber-regulatory theorists write extensively about the “code” as a regulatory modality in cyberspace, they conceptualize the “code” in basic terms as being merely “software and hardware”. In particular, they pay little theoretical and empirical attention to the complex process through which the “code” is constructed.²⁸ A deeper engagement with the “code” as a technological artefact is vital to an analysis of its regulatory consequences, such as its automatic architecture.

Secondly, many writers have underscored the weaknesses of the labels attached to the regulatory modalities.²⁹ For example, CRT defines law narrowly in Austinian terms.³⁰ I question CRT’s view of law as being coercive, restrictive, and mainly normative with law being conceptualized only as a specific section in a statutory instrument or a judgment’s *ratio*. This conceptualization of law does not account for the *heterogeneous* ways in which the legal manifests itself, such as legal skills.

Thirdly, CRT over-simplifies the relationships between the four regulatory modalities as it fails to analyze the interdependencies and conflicts which exist amongst these regulatory modalities. For example, by arguing that “code is law”, CRT over-generalizes the relationships between law and “code” without taking into account the specific empirical contexts in which such relationships are formed and performed. Is “code” always law in all online environments?

Finally, CRT adopts a restrictive analytic lens of regulation which prevents it from analyzing how power effects are generated in cyberspace, how they interact with one another, and how relationships of perceived subservience emerge (for example, law being displaced by “code”).³¹ CRT’s “top-down” approach means that it can only account for power from one direction (that is, from the State or private companies) and understand regulation as a fixed social structure that shapes interactions rather than being an outcome of interactions.

Recently, a third theme has emerged from the cyberspace regulation literature, namely, conceptualizing cyberspace regulation as a complex and dynamic process which involves interactions between regulatory modalities and human actors other than macro-actors, such as the State.³² Network communitarianism is particular apposite here as it uses ANT.³³ Networking communitarianism challenges the idea of the individual as a passive actor during the regulatory process. Network communitarians argue that the individuals form part of a “matrix of dots” with shared viewpoints and standards of behavior and actively participate in the regulatory process.³⁴ For example, laws are passed by law-makers who are elected by the

²⁸ E.g., Vranaki, *supra* note 1 at 38.

²⁹ A. Murray and C. Scott, “Controlling the new media: Hybrid responses to new forms of power” (2002) 65(4) *The Modern Law Rev.* 491.

³⁰ E.g., Vranaki, *supra* note 1 at 38.

³¹ E.g., Lessig, *supra* note 11 at 175.

³² Raab and De Hert, *supra* note 12; Murray, *supra* note 13.

³³ A.D. Murray, “Cyberspace Regulation” in *Handbook On The Politics Of Regulation*, ed. D. Levi-Faur (2011) 265 at 267.

³⁴ E.g., Murray, *supra* note 13.

community. From this viewpoint, the regulatory modalities derive their legitimacy from the “matrix of dots” that can challenge objectionable regulatory settlements.

Network-communitarianism is valuable as it highlights that the individual is not a mere passive regulatee. However, network communitarianism raises three key issues. Firstly, network-communitarians fail to present a persuasive and in-depth argument about how it is conceptually and methodologically possible to combine the numerous theories it draws on bar a few mentions of some similarities between ANT and Social Systems Theory (“SST”). In my view, ANT and SST are less similar than network communitarianism suggests. The ANT idea of an “actor-network” and Luhmann’s idea of a “system” are two distinct ideas which come from different sociological origins. An “actor-network” refers to “... an entity that does the tracing and the inscribing”³⁵ whilst a “system” can be understood in simple terms as the boundary between itself and the environment.³⁶ SST builds on functionalism whilst ANT builds on science and technology studies, a specific substantive field of sociology which also gives rise to more widely applicable theorizing. Crucially, it is highly questionable whether ANT’s “fibrous”, “capillary”, “ropy” “actor-network” can really be equated with the SST’s “system” or nodal governance theory’s “node”.

Secondly, network-communitarianism does not capitalize on ANT’s principles of agnosticism and analytical symmetry when developing its conceptual prism. Agnosticism means that a researcher should avoid making judgments about the *actants* under study and should not privilege the account of one *actant* over another.³⁷ Analytical symmetry is a methodological heuristic that suggests that a researcher should not distinguish between human and non-human actors.³⁸ By not utilizing these principles, network communitarianism reaches counter-ANT arguments. For example, network communitarians understand regulation as a “discourse between the individual and society” rather than an effect of local and fragile connections between relevant human and non-human actors. Additionally, in another counter-ANT move, network communitarians contend that a “regulatory settlement” is generally either imposed or challenged by society. This argument assumes that society or social elements drive regulatory effects in the network and betrays a *de facto* social constructivist stance. ANT would argue that this is a context-dependent conclusion.³⁹ Finally, network-communitarianism is also at odds with ANT as it assumes that a “matrix of dots” emerges in the network. ANT would question how communities of dots emerge empirically and how one *actant* can speak on behalf of other *actants*.

Based on this critique of the literature, it is clear that despite the merits of the dominant cyber-regulatory lens, it is not wide enough to capture the potentially complex power effects generated in online environments when a legal right is at risk. However, a move towards my ANT-Foucauldian Power Lens enables the analysis of the intricate connections and dissociations between manifold social, legal, and technological *actants* when a legal right is at

³⁵ Latour, *supra* note 16, at 375.

³⁶ For more, see, e.g., N. Luhmann, *Social Systems*, trans. J. Bednarz Jr. and D. Baecker) (1995).

³⁷ M. Callon, “Some elements of a sociology of translation: domestication of the scallop and the fishermen of St Brieuc Bay” in *Power, Action and Belief: A new Sociology of Knowledge?* ed. J. Law (1986) 196. Vranaki, *supra* note 1 at 43-50.

³⁸ Callon, *id.*

³⁹ Vranaki, *supra* note 1 at 48.

stake. This perspective opens up empirical inquiry as the scope of analysis is not limited to pre-determined entities, such as the State. Rather, the positions and power effects (for example domination or control) of such *actants* are achievements generated from their connections with other *actants*. So what are the main ideas of my ANT-Foucauldian Power Lens?

III. POWER: OF PRODUCTIVITY, RESISTANCE AND ASSOCIATIONS

Many scholars have noted the close “affinity” between Foucauldian and ANT ideas about power, such as, power as a productive, and enabling “effect” generated from the local, and fragile associations between diverse *actants*.⁴⁰ Before analyzing the main ideas of my ANT-Foucauldian Power Lens, I explain the three key reasons why I am using ANT and Foucault in conjunction with one another in this conceptual framework.

Firstly, I contend that, taken together, ANT and Foucauldian writings on power provide a stronger analytical perspective to analyze how multiple legal, social, and technological *actants* are assembled to construct a SNS as an “actor-network” when a legal right is at risk and the power effects generated from such local connections. For example, if I only use a Foucauldian approach, I would be unable to account for heterogeneity in SNS, beyond discourses, institutions, architectural forms, regulatory decisions, administrative measures, institutions, and law in socio-historic contexts. However, by also using ANT principles and concepts, I can explicitly account for the roles of non-human actors, such as algorithms embedded in programming languages, in network construction. Likewise, if I only use an ANT approach, I may downplay the roles of humans in network construction.⁴¹ For example, ANT, unlike Foucault, can only shed a limited light on the ethical issues raised by SNS users’ resistance.⁴²

Secondly, ANT provides me with a more practical perspective than Foucault to talk about the interactions between power effects because of its robust micro-sociological empirical approach, which is more relevant to my research of activity in contemporary SNS than Foucault’s genealogical and historical approach.⁴³ In particular, ANT helps me to trace the construction, brittleness and dynamism of specific “orderings” and their power effects in SNS. “Orderings” means the myriad of ways in which heterogeneous legal, social, and technological *actants* are locally associated when legal rights are violated and/or protected.⁴⁴

Thirdly, I can develop an advanced understanding of how material conditions, such as hyperlinks, support specific power effects by using the Foucauldian concept of materiality and

⁴⁰ G. Kendall and G. Wickham Gary, *Using Foucault’s Methods* (1998) 57.

⁴¹ I am grateful to Professor Geoff Walsham for raising this point.

⁴² M. Foucault, “The Ethic of the Care for the Self as a Practice of Freedom” in *The Final Foucault*, ed. J. Bernauer and D. Rasmussen (1988) 1.

⁴³ M. Foucault, *The History of Sexuality. Vol. I: An Introduction* (1978).

⁴⁴ E.g., Law, *infra* note 59; J. Law, *Organising Modernity* (1994) at 1ff.

the ANT concept of relational materiality.⁴⁵ “Materiality” refers to “that which constitutes the matter or material of something.”⁴⁶ “Material” means,

matter (not precisely characterized); that which constitutes the substance of a thing (physical or non-physical). Thus ... materiality becomes a signifier of contingency, of ‘ce qui fait que tout se fait.’⁴⁷

“Materialities” emerge as possible partial explanations for how “orderings” or lack of “orderings” can be maintained over time and space and how different “orderings” can co-exist (or not) alongside one another.

I now tackle five relevant ideas of my ANT-Foucauldian Power Lens, namely, power’s provenance, power as confrontation and productivity, power as an “effect” of one “possible state of association”, the link between power and “materialities”, and “governmentality” and surveillance.

A. *The Provenance of Power*

Power does not emanate only from one single source, such as the State, or one single direction (namely top-down) but from multiple sources and directions (that is, also bottom-up). Power constitutes “the multiplicity of force relations immanent in the sphere in which [it] operate[s] and which constitute [its] own organization”.⁴⁸ Despite not emanating from a single source of central authority, power is omnipresent because “it is produced from one moment to the next, at every point, or rather in every relation from one point to another. Power is everywhere, not because it embraces everywhere, but because it comes from everywhere.”⁴⁹

As such, power can only be exercised rather than being a privilege which is acquired, preserved and hoarded by a dominant *actant*. Crucially, power is the “...overall effect of [relevant] strategic positions”.⁵⁰ Consequently, the actions of each *actant* involved in a specific connective chain are equally important for the diffusion of a token. Inertia, initial force, capitalization, and so on are absent to explain the successful diffusion of a token. The latter is rather explained as the “consequence of the energy given to the token by everyone in the chain who does something to it.”⁵¹ There is also an important distinction between possessing power and exerting power. “When an *actant* has power nothing happens and s/he is powerless; when, on the other hand, an actor exerts power it is others who perform the action”.⁵²

⁴⁵ M. Foucault, *The Archaeology of Knowledge* (1972) 101. J. Law, “Actor network theory and material semiotics” in *The New Blackwell Companion to Social Theory*, ed. B. Turner (2008) 141.

⁴⁶ Oxford English Dictionary. Online Version.

⁴⁷ A. Pottage, “The materiality of what?” (2012) 39 (1) *J. of Law and Society* 167.

⁴⁸ Foucault, *supra* note 43 at 92.

⁴⁹ *Id.* at 73.

⁵⁰ M. Foucault, *Discipline and Punish: the Birth of the Prison* (1977) 26.

⁵¹ B. Latour, “The Powers of Association” in *Power, Action and Belief: A New Sociology of Knowledge?*, ed. J. Law (1986) 264, at 267.

⁵² *Id.* at 265.

B. Power: The Site of Confrontation and Productivity

Additionally, power is dynamic as it involves “...ceaseless struggle and confrontation” that constantly “...transforms, strengthens, or even reverses...” how its constituting relations are organized”.⁵³ Power is an enabling and productive phenomenon rather than being merely restrictive and coercive. As Foucault argues “the term power designates relationships between partners (and by that I am not thinking of a zero-sum game), but simply ... of an ensemble of action which induce others and follow from one another.”⁵⁴

Thus, power only exists when it is “put into action.” Consequently, the *defining* element of a power relation in this conceptual framework is the “...representation of action which does not act directly and immediately on others” *but rather* “...acts upon their actions: an action upon an action, on existing actions or on those which may arise in the present or the future”.⁵⁵ ANT takes this idea of an indirect layered exercise of power (for example domino effects) further and talks about power as a “consequence rather than as a cause of action”.⁵⁶ Here, power seems less “powerful” than in the traditional modernist understanding and causation becomes much more complex because power can “summarize the consequence of a collective action” but cannot account for how collective action is held together.⁵⁷

C. Power as the “Effect” of One “Possible “State of Association”

Crucially, power is an “effect...[produced from] the network of mobile, durable and tractable agents that have been sent out in another’s company”.⁵⁸ The durability of an actor-network depends on “immutable mobiles” or objects which can move from one location to another without changing. Relatedly, power is neither permanent nor stable as it is an “essence” which can dissolve at a later stage when one of the entities involved in the state of association “has gone from Name of Action to Name of Object”.⁵⁹

More precisely, power is not only an effect *but rather* an effect generated by one possible connective chain between diverse actants in an actor-network.⁶⁰ Power is always local and unstable as it “...is composed here and now by enrolling many *act[ants]* in a given political and social scheme, and is not something that can be stored up and given to the powerful by a pre-existing society”.⁶¹ Moreover, the actions of each *actant* involved in a particular associative

⁵³ Foucault, *supra* note 43, at 92.

⁵⁴ M. Foucault, “The subject and power” (1982) *Critical inquiry* 777, at 786.

⁵⁵ *Id.* at 789.

⁵⁶ Latour, *supra* note 51, at 265ff.

⁵⁷ *Id.*

⁵⁸ J. Law, “On the Methods of Long Distance Control: Vessels, Navigation and the Portuguese Route to India” in *Power, Action and Belief: a new Sociology of Knowledge?*, ed. J. Law (1986) 234.

⁵⁹ J. Law, “Power, discretion and strategy” in *A sociology of monsters: Essays on power, technology and domination*, ed. J. Law (1991) 165.

⁶⁰ *E.g.*, see *id.* Latour *supra* note 51, Callon *supra* note 37.

⁶¹ Law, *supra* note 59, at 141.

chain are essential to the existence and preservation of the token in question. In particular, each *actant* shapes the token according to his/her own project.

Other *actants* follow the command. This is the outcome of local actions from *actants* present in the associative chain. When following the command, each *actant* “translate” the command according to its interests. Once a statement is obeyed, it is no longer the same statement as the initial one. On the contrary, it has been “translated” rather than transmitted and the actors are not obeying the initial statement but rather performing a specific act because it aligns with their own interests. So what is translation?

Translation is a four-staged process of “problematization”, “interessement”, enrolment and mobilization through which an “actor-network” is constructed.⁶² During “problematization” one or more key *actants* become indispensable in defining the nature of the problem and the roles of the *actants* needed to solve the problem. The problem is defined in terms of the solution offered to the *actants* which becomes an “obligatory point of passage” for all the relevant *actants*. An obligatory point of passage is an obligatory element through which all the relevant *actants* must pass in order to achieve a result. “Interessement” refers to the attempts of an entity to impose roles and identities on the *actants* it defines through its “problematization.” Enrolment refers to the definition and coordination of the roles of *actants* so that a stable network of association is generated. Mobilization refers to the stage where the relevant *actants* have accepted their roles in solving the problem or have yielded to an imposition of the will of others. The *actants* involved in translation are engaged in a collective process of transmission in which the thing in question is passed along from *actant* to *actant*. Each *actant* can add to, modify or block the thing in question depending on its interests. Thus, the *actants* involved in the process have different attitudes towards the thing depending on their interests and can do anything to the thing. Consequently, the thing is not only collectively transmitted by the *actants* but also composed of these very *actants*. Crucially, the outcome of a statement is determined by *actants* other than merely the enunciator of the statement. A crucial idea linked to the notion of power as “effect” is that of power as a “condition, a capacity, something that may be stored.”⁶³ This means that “power to” and “power over” can be contained and released when required.⁶⁴ Next I explore the links between power and “materialities”.

D. Power: Of Relational Materiality

Material conditions, such as hyperlinks, can render some local connections more durable and mobile through time and space respectively. As an example, a hyperlink can be understood as an online navigation system which takes the person who clicks on it to the text to which it is linked. It is a durable and mobile representation of the set of relations that points

⁶² Unless otherwise referenced, this paragraph draws on Callon, *supra* note 39.

⁶³ J. Law, “Power, discretion and strategy” (1990) 38(1) *The Sociological Review* 165 at 165 ff.

⁶⁴ J. Law, “Technology and heterogeneous engineering: The case of Portuguese expansion” in *The social construction of technological systems: New directions in the sociology and history of technology*, ed. W. E. Bijker et al (1990) 111.

the user to the relevant document.⁶⁵ It is durable in the sense that it will not link to anything other than the document in question although it may stop working from time to time. It is also mobile as it can easily be transmitted between users, for example by copying and pasting the hyperlink in an email, without its contents being altered. Mobile material conditions enables governance at a distance as a broader range of *actants* can be reached and influenced.⁶⁶

Embodying local connections in durable and mobile materialities mean that such connections and their power effects last longer. It should be noted that some “materialities” are more durable than others and as such maintain relational patterns, and their power effects, for longer.⁶⁷ Arguably, the durability of a “materiality” is not an *a priori* attribute of the “material” in question but rather an effect generated from the networks of relations within which such “materiality” finds itself.

Having examined some of the general tenets of my ANT-Foucauldian Power Lens, next, I analyze how I use the Foucauldian notions of “governmentality” and surveillance together with ANT ideas about surveillance.

E. “Governmentality” and Surveillance

“Governmentality” refers to the “conduct of conduct” or to the “...techniques and procedures for directing human behavior.... government of children.....of a household, of a state or of oneself”.⁶⁸ Government is “an activity that undertakes to conduct individuals throughout their lives by placing them under the authority of a guide responsible for what they do and for what happens to them”.⁶⁹

“Governmentality” is useful as it helps me to think about power sources that attempt to shape the conduct of *actants* through rational, calculated activities of multiple authorities and agencies to achieve “economy” for the population which becomes crucial in defining the aims of government. Moreover, “governmentality” facilitates an examination of the practices of the self which resist other forms of government. For example, “governmentality” is useful to analyze how SNS users often exercise their agencies through resistance. Finally, “governmentality” underlines how surveillance relations often emerge as strategies to organize Facebook. To examine surveillance relations, I use Foucauldian and ANT ideas about surveillance which have been developed through the metaphors of the “panopticon” and the “oligopticon” respectively.

Briefly, Foucault contends that the “panopticon” generates perfect surveillance as the inmates imprisoned in the structure are isolated from one another in cells arranged around a central tower which is occupied by a central guard, who can see the inmates, but cannot be seen by the latter.⁷⁰ In contrast to the perfect surveillance enabled by the “panopticon”, through

⁶⁵ E.g., J. Law, “Notes on the theory of the actor-network: ordering, strategy, and heterogeneity,” (1992) 5(4) *Systems Practice* 379 at 387 and *id.*

⁶⁶ E.g., *Id.*

⁶⁷ E.g., Law *supra* note 59.

⁶⁸ M. Foucault, “On the Government of the Living” in *Michel Foucault, Ethics: Subjectivity and Truth. Essential Works of Michel Foucault. Vol. 1. 1954 – 1984.* ed. P. Rabinow (1997) 22.

⁶⁹ *Id.* at 68.

⁷⁰ See Foucault *supra* note 50.

visibility and self-discipline, ANT's "oligopticon" is a fragile construction whose vision can be blurred by the tiniest insect.⁷¹ Through inscriptions, such as computer programs, it enables one to "...see little...but see it well" in concrete places.⁷² Consequently, the "oligopticon" enables a detailed observation from a limited viewpoint. However, if the connections generating this view change then the vision itself changes. The "oligopticon" is a useful metaphor to examine surveillance relations as it conceptualizes surveillance as a "situated exercise" which depends on local, contingent, and precarious heterogeneous connections rather than flowing from one direction, namely from the "watched" to the "watcher".⁷³ Consequently, it bypasses a common problem in some surveillance studies where the "panopticon" has become a "straightjacket" whose walls are in danger of being "torn down" as many attempt to attribute general characteristics to surveillance.⁷⁴

Having explained my ANT-Foucauldian Power Lens, next, I outline the methodology of this article.

IV. METHODOLOGY

This article is based on the findings of a qualitative case study of the power effects generated in Facebook when data protection and privacy rights are at stake. As far as possible, I ensured that my case study was not subjective by using several strategies including data triangulation. Moreover, I ensured that my case study was reliable by using various data analysis strategies including graphic organizers and Nvivo.

The case study drew on virtual ethnography, documentary analysis and one qualitative interview. After obtaining ethical clearance, I collected these three data categories over several days in 2011, 2012, August 2013, and June to September 2015.⁷⁵ As a researcher based in the United Kingdom, I investigated the UK version of the Facebook website. I collected over sixteen thousand relevant Facebook users' comments on several days from January to March 2012, in August 2013 and from June to September 2015.⁷⁶ I conducted desk-based documentary research on multiple days in 2011, 2012, August 2013, and June to September 2015. Documents examined included the European data protection laws,⁷⁷ the guidance from

⁷¹ B. Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory* (2007) 155.

⁷² B. Latour and E. Hermant, *Paris Ville Invisible* (1998) 14ff.

⁷³ J. Nolan and M. Levesque, "Hacking human: data-archaeology and surveillance in social networks" (2002) 25(2) ACM SIGGROUP 33.

⁷⁴ K. Haggerty, "Tear down the walls: on demolishing the panopticon," in *Theorizing Surveillance. The panopticon and beyond*, ed. D. Lyon (2006) as cited in C. Gad and P. Lauritsen Peter, "Situating Surveillance: an ethnographic study of fisheries inspection in Denmark" (2009) 7(1) *Surveillance & Society* 49; A. K. Franko et al, "Introduction" in *Technologies of (in)security. Technologies of InSecurity. The Surveillance of Everyday Life*, ed. A. K. Franko, et al (2009) as cited in Gad and Peter, *id.*

⁷⁵ The Social Sciences & Humanities Inter-Divisional Research Ethics Committee of the University of Oxford granted institutional approval in a letter dated April 20, 2011. Letter on file with author.

⁷⁶ E.g., over one thousand Facebook users comments, collected on January 20, 2012, <https://www.facebook.com/video/video.php?v=10150228703690484>; over three hundred Facebook user comments, collected on October 13, 2013, on Facebook's call to its users to vote on the proposed changes to its Data Use Policy, https://www.facebook.com/note.php?note_id=10150740019045301; analysis of over 400 Facebook user comments, collected on September 4, 2015, <https://www.facebook.com/notes/facebook-and-privacy/a-closer-look-at-a-checkup-helping-millions-of-people-control-who-they-share-wit/745499878833230>.

⁷⁷ The Council Directive 95/46, 1995 O.J. (L 281) 31 (EC), available at <http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A31995L0046> (hereinafter "Data Protection Directive"); the Council Directive

advisory bodies and European data protection authorities,⁷⁸ Facebook contracts,⁷⁹ relevant parts of the Facebook website⁸⁰ and email exchanges between myself and a number of data protection authorities.⁸¹ Finally, I interviewed one senior Facebook representative on a non-attributable basis in April 2011.⁸²

During data collection, I avoided generating a limitless representation of Facebook by identifying and following the *actants* which were most relevant to my enquiry.⁸³ Thus, certain *actants*, such as European data protection laws, were examined in detail as they were very relevant to my investigation. Other *actants*, such as routers, were treated as cutting points of the investigations as they were not as relevant to my study. Other *actants*, such as “Old Facebook Profile”, were not analyzed in the study as they were not used anymore.⁸⁴

Having explained the methodology of this article, next, I set out some of the relevant aspects of Facebook advertisements.

V. EXPLORING FACEBOOK ADVERTISEMENTS

Facebook advertisements are vital to Facebook’s business model as they enable the company to provide its website free of charge to its users. Facebook advertisements are the contents displayed to Facebook users at the requests of advertisers. Several contracts, such as the Data Policy and the Advertising Policies, govern the relationships between Facebook, its users, and its advertisers (“Governing Contracts”).⁸⁵ Facebook advertisements can appear on different parts of the website, such as, the middle column on the profile pages of Facebook users where such users and their Facebook connections (“Friends”) can share information, such as photographs (“Photo”). Moreover, Facebook advertisements can be displayed in numerous forms including an advertisement promoting a company’s Facebook page (“Page”), which is paired with the information that one of the Facebook users Friends has recently “liked” this

2002/58, 2002 O.J. (L 201) 37 (EC) as amended by Directive 2009/136/EC, available at <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002L0058:en:HTML> (hereinafter “E-Privacy Directive”); the GDPR, *infra* note 168. Only European data protection laws were analysed as they were the laws which applied to the European operations of Facebook.

⁷⁸ E.g., Article 29 Data Protection Working Party, Opinion 2/2010 on Online Behavioural Advertising, 00909/10/EN, WP 171 (June 22, 2010), available at http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2010/wp171_en.pdf.

⁷⁹ E.g., Facebook Terms and Policies, <https://www.facebook.com/policies>.

⁸⁰ E.g., Facebook’s Help Centre, <https://www.facebook.com/help/?ref=contextual>; Facebook and Privacy, <https://www.facebook.com/fbprivacy/?fref=ts>; Facebook Advert Guides, <https://www.facebook.com/business/ads-guide/>; Facebook News Room, <http://newsroom.fb.com/news/>; Facebook f8 Developer Conferences, <https://developers.facebook.com/videos/>; Facebook Notes, <https://www.facebook.com/facebook/notes>; Facebook Engineering, <https://www.facebook.com/Engineering/?fref=ts>.

⁸¹ E.g., Email from Ms Valerie Lawton, Senior Communications Advisor at the Office of the Privacy Commissioner of Canada to author (March 23, 2012. Email on file with author.

⁸² Interview of a senior Facebook representative conducted by the author on April 19, 2011 by Skype conducted on the basis that the transcript of the interview and the identity of the interviewee are not disclosed.

⁸³ M. Strathern, “Cutting the network” (1999) *J. of the Royal Anthropological Institute* 517.

⁸⁴ <http://www.cbc.ca/news/technology/story/2011/12/15/technology-facebook-timeline.html>.

⁸⁵ Facebook Terms and Policies, *supra* note 79.

Page.⁸⁶ “Like” means that a Facebook user has clicked on the “like” button to connect with things he likes or provide positive feedback.

So how can advertisers create a Facebook advertisement? Once advertisers have created a Page, they can advertise on Facebook by using tools, such as the “Ad Creation Tool”.⁸⁷ Amongst other things, these tools enable advertisers to construct the audience which is most likely to respond to their advertising campaign. Audiences can be created by using both native Facebook data (for example, the user’s actions on Facebook) and non-native Facebook data (for example, the data which Facebook obtains from data brokers).⁸⁸ Various traits such as, interests, job title, and purchasing information, can also be used to further refine audiences. Once an advertisement has been distributed to a particular audience, advertisers can use tools including “Audience Insights” to gain in-depth knowledge of the users who interact most with their advertisements.⁸⁹ Advertisers can also evaluate the performance of their advertising campaigns by using tools, such as “Adverts Performance”.⁹⁰ Based on such information, the advertisers can refine their future advertising strategies. For example, if the targeted audience does not engage with an advertisement, then the advertiser can shift its budget to another advertising campaign which has a better response rate.⁹¹ Finally, Facebook users can manage or control the Facebook advertisements they see by using several means including clicking the “x” on the top right corner of the advertisement and choosing “I don’t want to see this”. Facebook users can also tailor their Privacy Settings so that specific information, such as using an application, cannot be paired with advertisements.⁹²

Having outlined the key aspects of Facebook advertisements, next, I briefly examine the current European data protection laws which apply to Facebook advertisements to introduce the reader to the applicable laws. It should be noted that Facebook handles diverse types of information about its users, such as geo-location data, device information, email address, political views, third-party Facebook user information, and personal data collected via cookies,⁹³ in order to deliver targeted advertisements.

VI. FACEBOOK ADVERTISEMENTS AND EUROPEAN DATA PROTECTION LAWS

It would not be possible for me to analyze in the space of this one section all the European data protection laws which apply to Facebook advertisements. Consequently, I confine my legal analysis to Facebook’s fair and lawful processing obligations in the context of targeted advertising under European laws as I deal with them in the remainder of this

⁸⁶ <https://www.facebook.com/help/116118951805237>.

⁸⁷ <https://www.facebook.com/help/274759766036201/>.

⁸⁸ *E.g.*, <https://www.facebook.com/business/learn/facebook-ads-basics>.

⁸⁹ <https://www.facebook.com/business/help/528690393907960>.

⁹⁰ <https://www.facebook.com/business/help/611361848972269?helpref=search&sr=2&query=adverts%20performance>.

⁹¹ <http://www.facebook.com/ads/manage>.

⁹² The Privacy Settings are the controls which Facebook provides to its users to enable the users to manage and control who can see their information on Facebook. https://www.facebook.com/settings/?tab=privacy&privacy_source=privacy_lite.

⁹³ <https://www.facebook.com/privacy/explanation>

article.⁹⁴ However, it does not mean that Facebook does not have to comply with additional requirements under European data protection laws.⁹⁵ So what are the relevant European data protection laws?

The Data Protection Directive and the E-Privacy Directive as nationally implemented flesh out Facebook's fair and lawful processing obligations.⁹⁶ Soft laws, such as the opinions of the Article 29 Working Party ("A29WP") and the guidance of the European data protection authorities, can also be relevant as they clarify the wide and vague provisions of the directives.⁹⁷ Such guidance and opinions are not binding although they impact on how European Economic Area ("EEA") countries interpret the domestic laws which implement the directives. What is the relationship between these two directives?

A. Relationship between the Data Protection and E-Privacy Directives

The Data Protection Directive (as nationally implemented) applies as a *lex generalis* where relevant to the processing of personal data. Personal data" mean "any information relating to an identified or identifiable natural person."⁹⁸ "Processing of personal data" refers to "any operation or set of operations which is performed upon personal data, whether or not by automatic means, such as collection, recording, organization, storage, adaptation or alteration, retrieval, consultation, use, disclosure by transmission, dissemination or otherwise making available, alignment or combination, blocking, erasure or destruction".⁹⁹ The provisions of the E-Privacy Directive operate as a *lex specialis* as they "particularize and complement" the Data Protection Directive.¹⁰⁰ Where the E-Privacy Directive does not apply, the Data Protection Directive applies provided that the information amounts to "personal data." The scope of the E-Privacy Directive is wider than the Data Protection Directive as it applies to "information" which includes but is not limited to "personal data."¹⁰¹ It should be noted that there are still strong debates about whether cookie data amounts to personal data.¹⁰² However,

⁹⁴ Data Protection Directive, *supra* note 77, art. 6(1)(a).

⁹⁵ Data Protection Directive, *supra* note 77, art. 6 (1)(b)-(e), 7, 10, 11, 17, 18.

⁹⁶ See Data Protection Directive and E-Privacy Directive, *supra* note 77.

⁹⁷ The A29WP is an advisory body which is composed of representatives of the European data protection authorities ("EU DPAs"), the European Data Protection Supervisor, and the European Commission that has been set up pursuant to the Data Protection Directive, *supra* note 77, art. 29. EU DPAs are the statutory independent public regulatory bodies which have various functions including applying and enforcing the laws relating to the protection of "personal data" in EEA states. See Data Protection Directive, *supra* note 77, art. 28.

⁹⁸ See Data Protection Directive, *supra* note 77, art. 2(a). It should be noted that the Data Protection Directive in specific circumstances including when relevant entities fall within its territorial scope. See Art. 4(1)(a)-(c).

⁹⁹ See Data Protection Directive, *supra* note 77, art. 2(b).

¹⁰⁰ See E-Privacy Directive, *supra* note 77, art. 2. See Orla Lynskey, "Track[ing] changes: an examination of EU Regulation of online behavioral advertising through a data protection lens" (2011) 36(6) E.L. Rev. 874-886, 876.

¹⁰¹ See E-Privacy Directive, *supra* note 77, recital 24.

¹⁰² See Article 29 Data Protection Working Party, Opinion 1/2008 on data protection issues related to search engines, 00737/EN, WP 148 (Apr. 4, 2008), available at http://ec.europa.eu/justice/data-protection/article-29/documentation/opinion-recommendation/files/2008/wp148_en.pdf, where the A29WP argued that IP addresses amount to personal data as they can be traced to the user with the co-operation of the internet service provider; *EMI & Ors v Eircom Ltd* [2010] IEHC 108, available at <http://www.bailii.org/ie/cases/IEHC/2010/H108.html>, where the Irish courts ruled that IP addresses did not amount to personal data; *Scarlet v Sabam*, Case C-70/10, November 24, 2011, available at

such debates may become less important when the new European data protection law – the GDPR - applies given that it defines personal data as including “online identifiers.”¹⁰³

The amended E-Privacy Directive is relevant to Facebook advertisements because of Facebook’s use of cookie data to deliver targeted advertisements to its users. Cookies are small text files which are installed on the devices of the users for various reasons, such as collecting information about the user.¹⁰⁴ Additionally, where applicable, as a data “controller”, Facebook also has to comply with the Data Protection Directive (as nationally implemented).¹⁰⁵ A data “controller” is a “natural or legal person, public authority, agency or any other body which alone or jointly with others determines the purposes and means of the processing of personal data.”¹⁰⁶

B. Applying Article 5(3) of the E-Privacy Directive to Facebook Advertisements

The revised article 5(3) of the E-Privacy Directive regulates the use of cookies or similar technologies by Facebook on the terminal equipment of its users by providing that:

Member States shall ensure that the storing of information, or the gaining of access to information already stored, in the terminal equipment of a subscriber or user is only allowed on condition that the subscriber or user has given his or her consent, having been provided with clear and comprehensive information in accordance with Directive 95/46/EC¹⁰⁷

Under Article 5(3), Facebook can only place cookies on the devices of its users if it has obtained informed consent from its users *prior* to such technologies’ placement on the

<http://curia.europa.eu/juris/document/document.jsf?text=&docid=115202&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=617023>, where the CJEU ruled that IP addresses amounted to personal data as they enabled users to be directly identified; and the referral by the German Federal Court to the CJEU on whether dynamic IP addresses amount to personal data Bundesgerichtshof Mitteilung der Pressestelle, Vorlage an den EuGH in Sachen "Speicherung von dynamischen IP-Adressen" No. 152/2014, *available at* <http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=pm&Datum=2014&Sort=3&nr=69184&pos=0&anz=152>. See also Article 29 Data Protection Working Party, Opinion 4/2007 on the concept of personal data, 01248/07/EN, WP 136 (June 20, 2007) *available at* http://www.ec.europa.eu/justice/policies/privacy/docs/wpdocs/2007/wp136_en.pdf where the A29WP argues that cookies in themselves, even when they do not contain IP addresses, can amount to personal data.

¹⁰³ See GDPR, *infra* note 168, art. 4(1).

¹⁰⁴ It should be noted that there are different types of cookies, such as functional cookies installed by the website provider to provide the user with access to the website, and non-functional cookies such as cookies installed by third-parties to collect information about the users. Functional cookies are typically exempt from the provisions of the E-Privacy Directive unless they are also used to collect information about the users. See E-Privacy Directive, *supra* note 77, art. 5(3).

¹⁰⁵ See Lynskey, *supra* note 100. For the provisions on establishment, See Data Protection Directive, *supra* note 77, art. 4.

¹⁰⁶ See Data Protection Directive, *supra* note 77, art. 2(d).

¹⁰⁷ It should be noted that third-parties, such as service providers used by Facebook, can also use cookies. However, I do not consider this aspect in this article. See Facebook, Cookie Policy, https://www.facebook.com/help/cookies?ref_type=sitefooter.

device of the user. Informed consent can only be obtained if Facebook has provided the user with clear and comprehensive information, in accordance with the Data Protection Directive, about several matters including the purposes of the cookies.¹⁰⁸ In the context of Facebook advertisements, this means that Facebook has to inform its users that one of the purposes of the cookies is to enable Facebook to deliver targeted advertisements to the users. Such information should be “clear and comprehensive,”¹⁰⁹ and be presented in a “user friendly,” “easily accessible and highly visible” manner.¹¹⁰

Valid consent for the purposes of the E-Privacy Directive corresponds to the consent given by the “data subject” under the Data Protection Directive,¹¹¹ a point examined further in Section V(C) below. Facebook also has to comply with the Data Protection Directive for “processing” the personal data of its users in order to deliver targeted advertisements. So what are the main provisions of the Data Protection Directive which apply to Facebook advertisements?

C. Facebook Advertisements and the Data Protection Directive

In its Data Policy, Facebook recognizes that the corporate entity, Facebook Ireland Ltd., is the data “controller” for Facebook users based outside of Canada and the US.¹¹² If this is accepted, then it means that the Office of the Data Protection Commissioner of Ireland is the main data protection regulator for the activities of Facebook Ireland Ltd. and is the competent regulator for the activities of Facebook Ireland Ltd.¹¹³ However, and crucially, this does not mean that other European data protection regulators or Member States’ courts cannot also regulate how Facebook Ireland Ltd. and other Facebook entities handle personal data.¹¹⁴

The Data Protection Directive provides Facebook users, in their capacities as data subjects, with specific rights, such as access, rectification, erasure, and objection rights.¹¹⁵ The Data Protection Directive also imposes several obligations on Facebook, such as fair and lawful

¹⁰⁸ See A29WP Opinion on OBA, *supra* note 78.

¹⁰⁹ See E-Privacy Directive, *supra* note 77, recital 25.

¹¹⁰ *Id.*

¹¹¹ See E-Privacy Directive, *supra* note 77, art. 2(f). The Data Protection Directive, *supra* note 77, art. 2(a) defines a “data subject” as an “identified or identifiable natural person...an identifiable person is one who can be identified, directly or indirectly, in particular by reference to an identification number or to one or more factors specific to his physical, physiological, mental, economic, cultural or social identity.”

¹¹² <https://www.facebook.com/privacy/explanation>. Facebook Inc. is the data “controller” for Facebook users living in the US and Canada.

¹¹³ In Ireland, the Data Protection Directive, *supra* note 77, has been nationally implemented by the Data Protection Act 1988 (as amended in 2003), *available at* <http://www.dataprotection.ie/viewdoc.asp?DocID=796>.

¹¹⁴ *E.g.*, Willem Debeuckelaere (President of the Belgian Commission for the Protection of Privacy) v. Facebook Inc., Facebook Belgium SPRL, and Facebook Ireland Limited, 15/57/C, November 9, 2015, *available at* <https://www.privacycommission.be/sites/privacycommission/files/documents/Judgement%20Belgian%20Privacy%20Commission%20v.%20Facebook%20-%202009-11-2015.pdf>; Google Spain SL v Agencia Española de Protección de Datos, Case C-131/12, (2014), <http://curia.europa.eu/juris/document/document.jsf?jsessionid=9ea7d2dc30dd7a8d4de5f8924b8981908f4c6ceda6bb.e34KaxiLc3qMb40Rch0SaxuPb3z0?text=&docid=153853&pageIndex=0&doclang=EN&mode=req&dir=&occ=first&part=1&cid=53717>.

¹¹⁵ Data Protection Directive, *supra* note 77, art. 12 and 14.

processing obligations.¹¹⁶ The **fair processing obligation** means that Facebook has to provide specific information to its users including the identity of the data “controller” and its processing purposes.¹¹⁷ In the context of targeted advertising, this means that Facebook has to explain to its users this specific processing purpose in as much detail as possible. Additionally, Facebook cannot process personal data for purposes which are not compatible with the specified purposes.¹¹⁸

The **lawful processing obligation** means that Facebook can only process the personal data of its users if one of the legitimating grounds laid down in Article 7 of the Data Protection Directive is satisfied. At present time, Facebook relies on valid consent as the legitimating ground for its processing purposes including targeted advertising.¹¹⁹ Consent is defined as “any freely given specific and informed indication of his wishes by which the data subject signifies his agreement to personal data relating to him being processed.”¹²⁰

Additionally, valid consent must be unambiguous.¹²¹ The provisions of the directive on consent suffer from similar defects as the remainder of the directive, namely, vagueness and inconsistent implementation by the EEA territories. The non-binding guidance of the A29WP can shed light on how Facebook can obtain valid consent.¹²²

According to the A29WP, for consent to be valid, Facebook users have to signify their wishes for their personal data to be processed by the Facebook through an active action¹²³. Additionally, consent can only be “freely given” if the Facebook user can exercise real choice which is free from deception, intimidation, coercion or significant negative consequences if he fails to consent.¹²⁴ Moreover, the Facebook user provides “specific” consent if he provides it in relation to a specific type of personal data and processing purpose.¹²⁵ Thus, Facebook has to explicitly, clearly and fully explain the scope and purposes of processing. Facebook must provide this information directly to the Facebook user. The information must also be prominently displayed on the website. Consent also has to be “unambiguous” in the sense that Facebook does not doubt that the user intends to consent to the processing.¹²⁶

Next, I examine selected empirical findings of my Facebook case study to illustrate that multiple legal, social and technological *actants* are locally and dynamically connected with one another in the context of Facebook advertisements and data protection.

¹¹⁶ Data Protection Directive, *supra* note 77, art. 6(1)(a).

¹¹⁷ Data Protection Directive, *supra* note 77, art. 10(a)&(b).

¹¹⁸ Data Protection Directive, *supra* note 77, art. 6(1)(b).

¹¹⁹ Data Protection Directive, *supra* note 77, art. 7(a). Facebook could arguably also rely on “legitimate interests” as a ground for the lawful processing of the personal data of its user for specific purposes including advertising.

¹²⁰ Data Protection Directive, *supra* note 77, art. 2(h). A “data subject” is an “...identified or identifiable natural person...” See Data Protection Directive, *supra* note 77, art. 2 (a).

¹²¹ Data Protection Directive, *supra* note 77, art. 7(a).

¹²² E.g., A29WP Opinion on Search Engines, *supra* note 102, A29WP Opinion on OBA, *supra* note 78, Article 29 Data Protection Working Party, Opinion 15/2011 on the Definition of Consent, 01197/11/EN , WP187 (July 13, 2011), available at http://ec.europa.eu/justice/policies/privacy/docs/wpdocs/2011/wp187_en.pdf.

¹²³ E.g., A29WP Opinion on Consent, *Id.*, at 11-24.

¹²⁴ *Id.*

¹²⁵ E.g. *Id.*

¹²⁶ When Facebook processes sensitive personal data - “data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs, trade-union membership, and the processing of data concerning health or sex life” - it has to obtain explicit consent from its users. See Data Protection Directive, *supra* note 77, art. 8(1).

VII. FACEBOOK ADVERTISEMENTS AS “ACTOR-WORLDS”

The analysis presented in this section supports my central argument that we need to use concepts, other than regulatory concepts, to understand more fully the complex, context-specific, dynamic and precarious assemblage of legal, social and technological *actants* which are involved when legal rights are at risk on online platforms such as SNS. For avoidance of doubt, this section provides *one account* of the diverse connections involved in the context of Facebook advertisement and data protection rather than a definitive account of all relevant connections at all times.¹²⁷

As Facebook flourished from a website with limited membership to one of the most popular social networking sites globally, one of its challenges has been how to model its business so that it can continue providing a free and innovative service to its rapidly growing customer base *whilst* generating enough revenue to subsidize its operations.¹²⁸ The solution to this problem, framed by various Facebook teams, such as Facebook’s management team, is to generate revenue by serving advertisements, paid for by third-parties, to Facebook users.¹²⁹ Facebook advertisements are framed as “problems-solutions” through which all the relevant *actants* have to occasionally pass.¹³⁰ For example, Facebook users cannot completely block Facebook advertisements and they are, in theory at least, likely to see an advertisement when they visit the website.¹³¹ Facebook advertisements have not emerged as “problem-solutions” from a state of nature but rather from numerous interactions between various *actants*, such as Facebook teams, algorithms, data protection laws, and mouse clicks. In particular, as analyzed next, although some *actants*, such as Facebook teams, play important roles in defining the initial stages of articulating the problem, other *actants* are also key to the translation of Facebook advertisements. These *actants* also change the “problematic field” as they bring their own interests with them whilst engaging with the problem. To illustrate this point, I focus on five important moments of translation.

Firstly, for the “problem-solution” to succeed, Facebook must persuade current and prospective users to remain on or join the website, while being served with advertisements.¹³² In most cases, individuals use Facebook to maintain social ties with their old and new connections rather than to be served with advertisements.¹³³ Targeted advertisements can often be unappealing to surfers for various reasons including lack of transparency and control over how advertisers use their personal information.¹³⁴ Websites which are also brimming with

¹²⁷ The empirical analysis set out in this section as well as Sections VIII and IX are derived from an in-depth examination of all the sources set out in Section IV. See Vranaki, *supra* note 1, chapters 6 & 7.

¹²⁸ Interview, *supra* note 82.

¹²⁹ E.g., Interview *supra* note 82.

¹³⁰ E.g., https://www.facebook.com/help/146952742043748?helpref=uf_permalink.

¹³¹ *Id.*

¹³² <http://www.businessinsider.com/is-facebooks-commercialization-bad-2013-3?IR=T>.

¹³³ See A. N. Joinson, “Looking at, looking up or keeping up with people?: Motives and use of Facebook” in *Proceedings of the SIGCHI conference on Human Factors in Computing Systems* (2008) 1027.

¹³⁴ J. Knit, “Outside Voices: Online Advertising Has a Trust Problem” (Wall Street Journal 2014) <http://blogs.wsj.com/cmo/2014/06/20/online-advertising-has-a-transparency-problem/>; T. Morey, T. Forbath and A. Schoop, “Customer Data: Designing for Transparency and Trust” Harvard Business Review (2015) <https://hbr.org/2015/05/customer-data-designing-for-transparency-and-trust>.

advertisements can often be slow as it takes longer for the advertisements to load.¹³⁵ Diverse strategies are deployed by multiple *actants* to align the interests of Facebook users with those of Facebook. For example, Facebook’s engineering and management teams rally around design and layout choices so that a limited number of advertisements are displayed on the website to ensure that such advertisements do not intrude on the experience of the users.¹³⁶ Implementing such design and layout choices depends on other *actants*. For example, as some sections of the Facebook page (for example, profile photo) load more quickly than other sections (for example, advertisements), the engineering team has to select the order in which they will load the features of the website in the “pipeline” so that the users remain on the site whilst the whole page is downloaded. Pipelining enables the simultaneous performance of instructions to expedite the execution of all the instructions. By pipelining some parts of the Facebook page (for example, profile name, search bar) separately from other parts of the page (for example, advertisements) which may take longer to load, the engineers attempt to convince the users to remain on the site whilst the remainder of the page loads.

Moreover, other *actants*, such as other algorithms, data categories, Friends, and clicks on drop-down boxes, are mobilized to generate the Privacy Settings – a space where Facebook users can manage and control data flows. Illustratively, Facebook users can tailor their Privacy Settings by clicking on a drop-down box in the Privacy Settings to prevent actions, such as their “likes”, from being paired with an advertisement. Here, algorithms enable or prevent data flows *through* their interactions with other *actants*.¹³⁷ Moreover, social practices, such as providing detailed information on how advertisements are created, attempt to overcome some Facebook users’ qualms about advertisements by demystifying Facebook’s advertising processes.¹³⁸

Secondly, for the “problem-solution” to succeed, Facebook has to “interesse” and enroll advertisers by providing them with *innovative* and *highly individualized ways* to reach the most relevant Facebook users. In particular, many advertisers would not use Facebook advertisements if Facebook did not provide them with new ways to target existing or new customers.¹³⁹ Audience creation is key here and it is not simply a technological process but rather a *socio-legal-technological* process. For example, the categorization of a Facebook user as a 20 year old female who in all likelihood enjoys streaming science fiction shows is generated from manifold connections. Relevant connections include:

- The Facebook user “liking” Netflix’s Page;
- Native user data (that is Facebook data), such as age, personal interests, favorite TV shows;
- Non-native user data (that is, third-party data), like the genres of DVDs purchased in a physical store;
- The Facebook user consenting to the terms of the Governing Contracts;
- Technical operations (for example, patterning); and

¹³⁵ F. Filloux, “News Sites Are Fatter and Slower Than Ever” (Monday Note, 2015), <https://mondaynote.com/news-sites-are-fatter-and-slower-than-ever-1dc7adebfc90#.p3k3udqcg>.

¹³⁶ *Infra* notes 148 and 149.

¹³⁷ A. Goffey, “Algorithm” in *Software Studies: A Lexicon*, ed. M. Fuller (2008) 15.

¹³⁸ <https://www.facebook.com/about/ads>.

¹³⁹ Interview, *supra* note 82.

- Algorithmic rules and processes embodied in programming languages.¹⁴⁰

Moreover, some Facebook teams mobilize video tutorials and web pages to provide detailed information on audience creation so as to minimize any difficulties advertisers may encounter when generating the audience for their advertisements.¹⁴¹ Additionally, as discussed in Section VIII, Facebook's legal and public policy teams mobilize others *actants*, such as specific statutory data protection laws, legal skills, legal knowledge, hyperlinks, Facebook's engineering team, and drafting skills, to generate specific conditions where Facebook user's personal data can be *lawfully* used for targeted advertising by, for example, obtaining the valid consent of the users.¹⁴²

Each of these *actants* appears as a "black-box" which hides from view the underlying hybrid connections generating them. Illustratively, when the black-box of non-native data is opened, diverse connections appear including data mining techniques, such as, classification, clustering, and predictions; aggregated online and offline third-party data about Facebook users; data sharing agreements between Facebook and third-parties; and hashing techniques.¹⁴³ The view of these *actants* depends on their vantage points in the network. For example, the Facebook user sees the "like" button as a simple user interface of a white thumb up with a blue outline. However, other *actants*, such as the third-party application developers who import the "like" button on their websites, see the "like" button as a series of punctuation marks, and alpha numerical numbers such as `<div class="fb-like" data-href="http://cyberpanda-cyberpanda.blogspot.co.uk/" data-layout="standard" data-action="like" data-show-faces="true" data-share="true"></div>`¹⁴⁴

This insight is crucial as it shows that the discursive limits which may apply in one reality (for example, the "like" button as a user interface) do not apply in another reality, such as the "like" button as a string of code, commas, brackets etc. Such discursive limits may enable or restrict how an *actant* interacts with the "like" button. For example, the material form of the "like" button – a white thumb-up with a blue outline – denotes to the Facebook user a stable network of connections. However, it also conceals from the user's view the multiple modes of "action upon action" are activated when the user clicks on the "like" button. Thus, when a Facebook user "likes" a Friend's Photo, disparate *actants* including some algorithms embodied in the graphical user interface, other algorithms embodied in programming languages, clicks by the Facebook user, mouse movements, Friends, and information stored on servers (for example, a Photo) are mobilized to generate the effect of a Facebook user "liking" the Photo of a Friend. This simplification of the sequences of "action upon action" also hides from view the precarity of these connections. Algorithms can be hacked and cease to function in the anticipated ways, servers may be temporarily unavailable, Photos may eventually be deleted by their owners, or broadband connections can slow down.¹⁴⁵

¹⁴⁰ *Supra* note 138.

¹⁴¹ *Id.*

¹⁴² *Id.*

¹⁴³ Hashing is "the transformation of a string of characters into a usually shorter fixed-length value or key that represents the original string." TechTarget, <http://searchsqlserver.techtarget.com/definition/hashing>.

¹⁴⁴ <https://developers.facebook.com/docs/plugins/like-button>.

¹⁴⁵ S. Pold, "Button" in *Software studies: a lexicon*, ed. M. Fuller (2008) 31, at 32.

Other than providing Facebook and data brokers with raw data through their online and offline interactions, what are the roles of Facebook users in the process of audience generation? Contrary to CRT which assumes that the Facebook user is a “pathetic dot” who is merely regulated by the regulatory modalities, my data analysis shows that Facebook users actively participate in or resist the process of audience generation.¹⁴⁶ For instance, Facebook users can actively alter or refine how they categorize audiences by constantly providing Facebook and third-parties with new information about their habits, interests, and so on. This constant circulation of new data about Facebook users from multiple sources lead to a dynamic refinement of Facebook users as audiences. Moreover, Facebook users can actively resist this dynamic data collection by installing third-party technologies, such as Adblock, to block Facebook advertisements, or opting out of the collection of their personal data when they visit third-party websites.¹⁴⁷ Consequently, information flows and dams are constantly etched through these (and more) local connections.

Thirdly, as Facebook’s engineering team interacts with the “problem” as originally defined by Facebook’s management team, it also adds to the “problematic field” by bringing its own set of interests and skills. Typically, one of the principal considerations of Facebook’s engineering team is to develop a scalable architecture which can support Facebook’s ever-growing subscription base and the large amount of information it handles every second.¹⁴⁸ This aim does not exist in a state of nature but is generated from a complex network of computing skills, algorithms embodied in several programming languages, and computing knowledge which have been mobilized, through Facebook’s engineers, to generate Facebook’s components. Thus, certain technical considerations including scalability, latency and the state of the art impact on how certain aspects of Facebook are shaped, such as the optimization of communications between the servers storing advertisements.¹⁴⁹ However, this does not mean that Facebook’s engineering team has a privileged role when developing these features because the decisions about the technical operations, and layout and design of these features are continuously refined through the interactions between Facebook’s engineering team and other Facebook teams (for example, legal and management).

Fourthly, Facebook’s Management have to “interesse” and enrol Facebook’s public policy and legal teams to ensure that the advertisements distributed on Facebook comply with the applicable data protection and privacy laws. Various strategies are used to “interesse” Facebook’s public policy and legal teams, such as conversations in the hallway and email correspondence.¹⁵⁰ As Facebook’s public policy and legal teams interact with the “problem” they also add another dimension to the “problem,” namely, how Facebook can provide its users with a free and *lawful* social networking platform, subsidized by advertising content. Here, Facebook’s public policy and legal teams bring their own networks of legal texts, drafting

¹⁴⁶ E.g., Facebook comments, *infra* note 147.

¹⁴⁷ E.g., <https://getadblock.com/> and my analysis of over one hundred Facebook user comments on the following Facebook Page post, <https://www.facebook.com/heres.adblock>, where Facebook users state they use such technologies to block Facebook advertisements.

¹⁴⁸ E.g., H. Barrigas and others, “Overview of Facebook’s Scalable Architecture” *ISDOC '14* Proceedings of the International Conference on Information Systems and Design of Communication (2014) 173.

¹⁴⁹ E.g., S. Srivastava and A. Singh, *Facebook Application Development with Graph API Cookbook* (Packt Publishing 2011); Barrigas, *id.*

¹⁵⁰ Interview, *supra* note 82.

skills, legal reasoning, legal interpretation, and more which impact on the initial “problem-solution”. From the perspectives of Facebook’s legal and public policy teams, specific issues, such as, obtaining valid consent from Facebook users for using their data to deliver targeted advertisements, become key considerations to ensure that Facebook advertisements comply with the relevant laws.¹⁵¹ This in turn impacts on the actions of other *actants*, such as Facebook’s engineering and management teams. To cite an instance, if the technical operations of a tool contravenes data protection laws, then this is very much a “deal-breaker” for Facebook’s engineering and management teams.¹⁵² In such cases, the tool has to be amended to comply with the relevant laws. Empirical evidence of the enrolment of Facebook’s public policy and legal teams in the scheme of Facebook’s management team abound. For example, Facebook’s public policy and legal teams have utilized their legal reasoning and interpretation skills to evaluate Facebook’s data protection obligations when it installs cookies or similar technologies on the devices of its users for targeted advertising purposes and how it can discharge these obligations.¹⁵³ Here, Facebook’s public policy and legal teams have discharged Facebook’s obligations under data protection laws by, for instance, drafting the Cookie Policy in an appropriate manner so that the company discloses to its users, in clear and simple terms, the purposes for which cookies and similar technologies are installed.¹⁵⁴

Finally, during mobilization, several *actants* have accepted their roles in solving the problem. Empirical evidence of mobilization include the creation of advertisements by advertisers, and Facebook users tailoring their Privacy Settings to control the types of information which advertisers can use in an advertisement. The successful translation of Facebook advertisements depends on the maintenance of the links between its constituting *actants*. However, such local connections can be ruptured as new *actants* are introduced in the network or old *actants* leave the network. For example, in January 2011, Facebook introduced a new element in the network, namely, that advertisers had to agree to an advertising data protection agreement which limits the number of cookie that can be dropped on the computers of Facebook users to only one.¹⁵⁵ Consequently, the associative chain generating the profiling of the Facebook users on external websites through cookies or similar technologies changed at that point as a new *actant*, namely, the data protection agreement with its underlying connections was brought into the network. Additionally, in cases where Facebook users resist advertisements by using third-party technologies, successful mobilization of Facebook advertisements are hindered.¹⁵⁶ I analyze the power effects of such oppositions later on in this article.

Having considered how Facebook advertisements are constructed as a socio-legal-technological “assemblage”, I now scrutinize the complex and multiple power effects generated from these materially heterogeneous connections.

¹⁵¹ E.g., Data Protection Directive, *supra* note 77, art. 2(h).

¹⁵² Interview, *supra* note 82.

¹⁵³ E.g., Facebook’s cookie and privacy policies, *infra* note 79.

¹⁵⁴ See <https://www.facebook.com/help/cookies/update>. E.g., E-Privacy Directive, *supra* note 77, art. 5(3) and recital 25. See <https://www.facebook.com/privacy/explanation>.

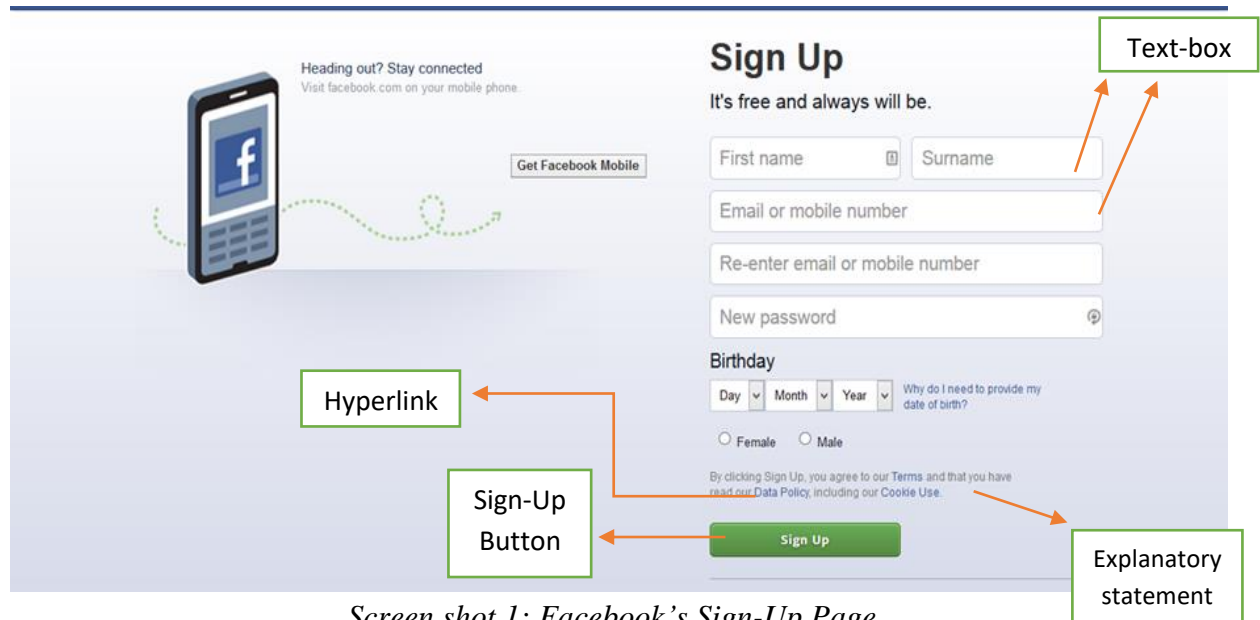
¹⁵⁵ E.g., Audit Report, *supra* note 9, at 58.

¹⁵⁶ E.g., Facebook user comments, *supra* note 147.

VIII. RITUALS OF CONSENT

In this section, I analyze selected empirical findings on how Facebook elicits valid consent from its new adult users for the purposes of processing their non-sensitive personal data, excluding cookie data, for targeted advertising.¹⁵⁷ I argue that two power effects are generated from the materially heterogeneous connections forming consent, namely, legalizing data processing for targeted advertising and constituting Facebook users as fully autonomous individuals. Additionally, through my consideration of the mundane and banal actions through which new Facebook users provide their consent, I question to what extent such users have truly provided valid consent.

So how does Facebook obtain valid consent from its new adult users? To answer this, we need to go to the “Sign-Up” page, illustrated by Screen shot 1 below that greets prospective adult users.



Screen shot 1: Facebook's Sign-Up Page

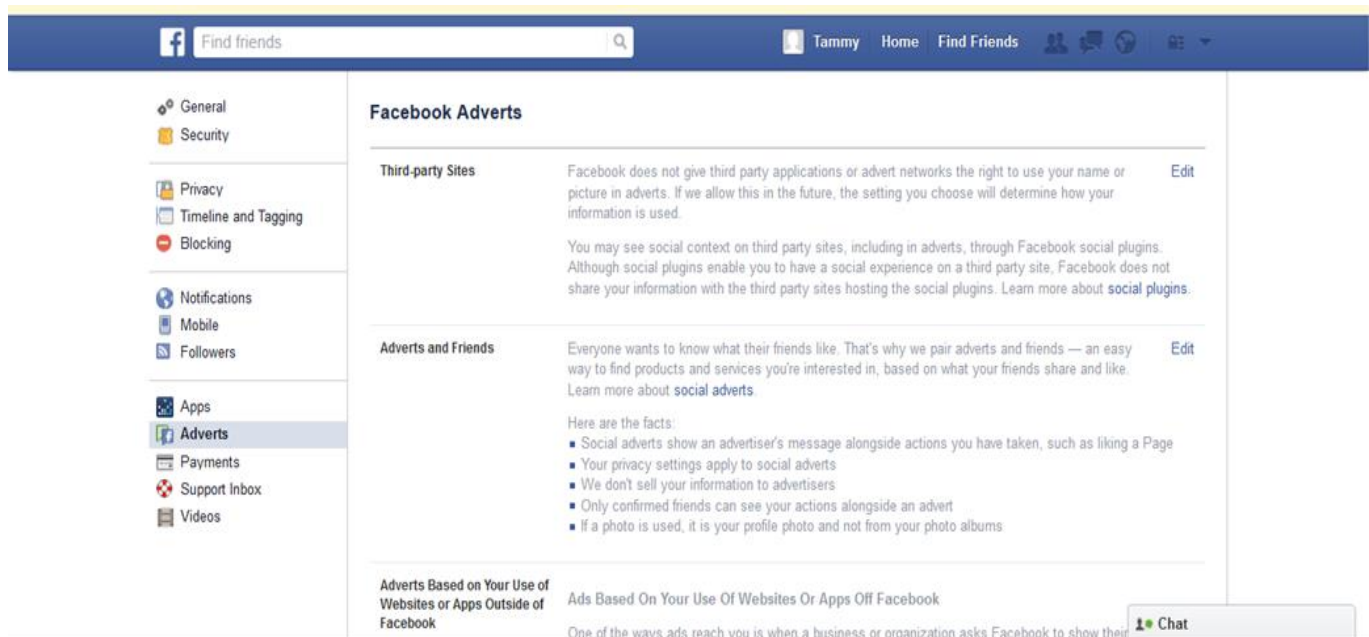
Screen shot 1 above shows that Facebook's Sign-Up page is composed of various routine features, such as text-boxes, hyperlinks to the Governing Contracts,¹⁵⁸ the “Sign-Up” button, and explanatory statements, which are also common place on other websites. Once the users have completed this page and clicked on the “Sign-Up” button, two additional pages then greet them where they are prompted to find their Friends on Facebook by synchronizing their email or Skype address books with their Facebook accounts and add a profile Photo. Facebook can use such information to serve targeted advertising to these users. For example, the profile Photo of a new user who has interacted with an application can be used to create an advertisement promoting the application to the new user's Friends.

How do adult users provide valid consent to the processing of their personal data for advertising purposes when they first join the website? In plain terms, new adult users consent

¹⁵⁷ See *supra* note 79.

¹⁵⁸ *Id.*

to specific processing purposes, including advertising, by agreeing to the Governing Contracts, in particular the Data and Cookie Policies, by clicking on the “Sign-Up” button. Facebook applies its default settings to all the information provided by its new users until such users have tailored their Privacy Settings to manage the visibility of particular information categories. Typically, after navigating through the sign-up screens, many new users often start to interact on Facebook without tailoring the default settings. Additionally, such users are not informed that Facebook’s default settings apply to their information and that they can amend these settings by tailoring their Privacy Settings. Screen shot 2 below illustrates the default settings that apply to Facebook advertisements:



Screen shot 2: Default Privacy Settings for Facebook Advertisements

Screen shot 2 shows that by default the social actions of new Facebook users can be paired with advertisements which are shown to all their Friends. Additionally, by default, advertisements which are based on the activities of Facebook users on external websites are also enabled.

From my ANT-Foucauldian Power Lens, as fully explained next, valid consent is understood as a relational achievement which depends on local associations between legal, social, and technological *actants* rather than merely social or legal or technological *actants*. Which connections lead to valid consent? As an illustration, Facebook’s legal and public policy teams bring with them their networks of legal skills (for example, interpretation and reasoning), the texts of the relevant data protections laws, and the guidance of the relevant data protection authorities to deduce that Facebook can only obtain “specific” consent from its users if it explains explicitly, clearly, and fully the scope and purposes of its processing operations to its new users before they sign up to the service. These informational documents also need to be written in clear and simple terms, should be accessible and should be prominently displayed to

the users on the Sign-Up Page.¹⁵⁹ Moreover, Facebook’s legal and public policy teams have to rally around Facebook’s engineering team, through discussions, so that the latter provide the users with access to the full texts of the relevant Governing Contracts on the Sign-Up page. Facebook users can access the Governing Contracts via hyperlinks which are located on the Sign-Up Page. Such hyperlinks take the users to the full texts of the relevant Governing Contracts uploaded on content management systems.

Here, Facebook’s engineering team have assembled some algorithms embodied in programming languages to generate hyperlinks which take the Facebook user, located in one jurisdiction, to the texts of the relevant Governing Contracts which are typically uploaded on multiple worldwide servers. The routine material representation of the hyperlink on Screen shot 1, as a text in a different color coupled with the banal action of clicking on the hyperlink, conceals from the Facebook user’s view the complex interconnections that take the user to the target document. As analyzed later, such simplifications obscure problems which can be created when mundane tools, such as hyperlinks, are used to elicit valid consent.

Additionally, Facebook’s engineering teams make important design choices in terms of the layout as well as the look and feel of the Sign-Up page. Crucially, not all of these choices are technological ones. For example, legal rationalities impact on certain design choices including where to place the hyperlinks to the Governing Contracts on the Sign-Up page.¹⁶⁰ As shown by Screen shot 1, the hyperlinks to the relevant Governing Contracts are placed immediately before the “Sign-Up” button so that Facebook users can access and read the Governing Contracts *before* consenting to them by clicking on the “Sign-Up” button. If the hyperlinks are placed beneath the Sign-Up button, arguably, Facebook users have not provided informed consent as they have not been provided with an opportunity to read the Governing Contracts in full before joining the website.

Here, the legalization of Facebook’s processing operations becomes increasingly an “achievement” which connects disparate *actants*, such as buttons, hyperlinks, Governing Contracts, processing operations, and Facebook users, in an “assemblage” or a more or less coherent entity. Some of these techniques which regulate personal data are constituted by as well as constitute law. For example, the practice of using multiple layers including hyperlink and full text layers to represent the Governing Contracts is shaped and targeted by complex webs of data laws, such as advice from the relevant European data protection authorities on layered notice.¹⁶¹

Importantly, valid consent is a dynamic “achievement” as other *actants* can occasionally join the associative chain and change the status quo. For example, after the Data Protection Commissioner of Ireland audited Facebook Ireland Ltd.’s operations and policies, it issued a number of best practice recommendations to Facebook.¹⁶² One of its recommendations was that Facebook should clarify the wording of its Governing Contracts so that it communicated more transparently to its users how it used their data to deliver targeted

¹⁵⁹ E.g., Data Protection Directive, *supra* note 77, art. 2(h); Data Protection Commissioner of Ireland, *Guidelines for the contents and use of Privacy Statements on Websites*, accessible at <https://www.dataprotection.ie/docs/PrivStatements/290.htm>.

¹⁶⁰ E.g., *id.*, Data Protection Commissioner of Ireland.

¹⁶¹ *Id.*

¹⁶² Audit Report, *supra* note 9.

advertisement.¹⁶³ Here, a new *actant*, namely, the Irish regulator joined the connective chain with its own set of interests, such as, improving Facebook's legal compliance in various areas including informational transparency.¹⁶⁴

These diverse connections also constitute Facebook users as fully autonomous individuals who join Facebook with complete awareness and agreement of how the company handles their information. However, the routinisation of valid consent conceals that many Facebook users often do not read or may not fully understand the relevant Governing Contracts.¹⁶⁵ Moreover, the ways in which actions have been mechanized here can lead to circumstances where particular power imbalances are generated. For example, new Facebook users are not explicitly told about the Privacy Settings and its default settings which apply automatically to their information when their sign up to or interact on the website. Consequently, until such Facebook users become aware of the Privacy Settings and make informed decisions about the settings they wish to apply to each information type, such information types arguably remain visible to a large group of individuals. This may potentially impact on the *quality* of the consent given by Facebook users as one could question to what extent such users have exercised their choice fully until they have formed reached an informed decision on the applicable setting for each information category.

Additionally, the action of clicking on the graphical user interface of the "Sign-Up" button by a mouse click is an ordinary action which Facebook users perform elsewhere in digital environments where actions are often mediated by the mouse click. For example, we click on the mouse to open applications on our device, to input keywords in online search engines and open webpages. These actions can often be different in nature and in terms of legal effects. The use of similar mundane action (that is the mouse click) to provide consent means that the subject-matter of the decision becomes even more removed from the individual.¹⁶⁶ This raises important questions about the validity of the consent obtained. To what extent can an individual be said to have formed a reasoned decision about sharing his personal data for a specific purpose if the act signifying this decision is not distinct from other mundane acts? For instance, in healthcare, patients signify their informed consent to a particular medical procedure by a distinct act, namely, signing a lengthy document, which is sufficiently different from their everyday actions, such as reading a book in a bookshop or paying for their weekly supermarket shopping by tapping their bank cards.

This raises important questions about the validity of the consent obtained. To what extent can an individual be said to have formed a reasoned decision about sharing his personal data for a specific purpose if the act signifying this decision is not distinct from other mundane acts? For instance, in healthcare, patients signify their informed consent to a particular medical procedure by a distinct act, namely, signing a lengthy document, which is sufficiently different from their everyday actions, such as reading a book in a bookshop or paying for their weekly supermarket shopping by tapping their bank cards.

¹⁶³ *Id.*, section 3.2

¹⁶⁴ *Id.*

¹⁶⁵ Recent research suggests that 79% of SNS users read half or less of informational materials before joining a website. See T. Ploug and H. Soren, "Routinisation of informed consent in online health care systems" (2015) 84(1) *International J. of medical informatics* 229.

¹⁶⁶ *Id.*

This “routinisation” of consent also hides how valid consent can often be a mere ritual used to show that legal obligations have been complied with rather than a substantial exercise which ensure that Facebook users have indeed given clear, informed, and unambiguous consent to all processing purposes. In particular, hyperlinks can break down, be temporarily unavailable, or stop working. Servers containing copies of the Governing Contracts can become unresponsive, be slow in accessing the relevant files, or have connection issues. Thus, in many contexts, Facebook users may not be able to actually read the Governing Contracts when they provide their consent. Finally, Facebook users may not always read lengthy, complex and legalistic privacy notices.¹⁶⁷ In such cases, to what extent is such consent valid?

These questions are even more relevant in the context of the upcoming General Data Protection Regulation (“GDPR”), which will drastically reform European data protection and privacy laws.¹⁶⁸ The GDPR has enhanced provisions on consent. For example, under the GDPR, websites like Facebook will be precluded from obtaining consent for data processing by tying the user’s acceptance to its terms of use with the acceptance of data processing which is not required for the user to use the website¹⁶⁹. Here, important questions are raised about how companies can obtain valid consent in the data driven economy and the appropriateness of relying on consent as the condition for legitimate processing.

Having analyzed the power effects generated by the materially heterogeneous associations that construct valid consent, next, I examine three power effects generated by other aspects of Facebook advertisements, namely, mass “dataveillance”, commodifying Facebook users, and enacting particular marketplaces.

IX. SEPARATING THE CONNECTED AND CONNECTING THE SEPARATE: COMMODIFYING FACEBOOK USERS AS CONSUMERS

Mass “dataveillance” refers to the systematic monitoring of the actions of large groups of Facebook users to sort them according to specific criteria, such as demographic, location, interests and marital status.¹⁷⁰ So how do Facebook advertisements generate effects of mass “dataveillance”?

Raw Facebook user data, for example, London location, has little commercial value to advertisers. However, when raw Facebook data connects to other legal, social, and technological *actants* then these connections can turn potentially mundane information into valuable marketing information, such as 20 year old woman living in London who likes musicals. The diverse *actants* which are involved in this process include some algorithms

¹⁶⁷ Plough and Soren, *supra* note 174; Centre for Information Policy and Leadership and Telefonica, “Reframing Data Transparency” (2016), https://www.huntonprivacyblog.com/wp-content/uploads/sites/18/2016/10/62672280_1.pdf.

¹⁶⁸ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation), 2016 O.J. (L 119) 1 [hereinafter GDPR], available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679>. The GDPR entered into force on May 24, 2016 and will apply on May 25, 2018. Relevant GDPR provisions on consent include Articles 6(1), 7, 8 and 9, GDPR.

¹⁶⁹ *E.g.*, Article 7(4), GDPR, *id.*

¹⁷⁰ R. Clarke, “Information Technology and Dataveillance,” (1998) 31(5) Communications of the ACM 498.

represented in text files that are installed on the Facebook user's device,¹⁷¹ other algorithms embodied in webpages that permit a website to read or place a cookie,¹⁷² protocols through which computers communicate with one another, main frame computers or mobile devices with their extant networks of copper cables, computational methods including statistical analysis, and Facebook users' valid consent to targeted advertisements. Here, mass "dataveillance" is not the outcome of the all-powerful "code" exercising control over other *actants*. Rather mass "dataveillance" is an effect generated through the local, context-specific, and often fragile relations between these various legal, social, and technological *actants*. In other words, mass "dataveillance" depends on multiple actions and relations which have to be in held in place before any surveillance *per se* can take place locally. When such connections are maintained, then large datasets of information emanating from various sources (for example, "likes" and the weekly supermarket shopping) are "acted upon" by these manifold *actants* to gather detailed information about Facebook users' consumption habits and detect or predict how such users are likely to behave in the marketplace.¹⁷³

So how much of the Facebook user is visible from these operations? My data analysis shows that mass "dataveillance" can often be partial and detailed as specific information, such as demographic and geo-location data, are extracted from various "capillaries" of the network and inscribed in durable and mobile media, such as graphs and tables, to enable such information to be carried from various network points.¹⁷⁴ "Mass dataveillance" can also very fragile as the scope of the generated vision can change over time as new *actants* join or old *actants* leave the associative chain. For example, Facebook's partnership with Datalogix means that a richer Facebook user profile can be created by associating native Facebook data with the anonymized data collected by Datalogix when Facebook users use their loyalty cards in offline transactions.¹⁷⁵ Thus, a more comprehensive vision of the Facebook user as consumer is generated by mashing up two different data sources. However, such visions can often also be hampered as new *actants*, such as Facebook users opting out of data sharing schemes,¹⁷⁶ join the associative chain.

Through this mass "dataveillance", Facebook advertisements constitute Facebook users as consumers of particular products. For example, identifying and associating some Facebook users as groups of individuals with particular purchasing habits clusters these users into consumer categories including specific lifestyle choices or spending habits. From this viewpoint, mass "dataveillance" is productive as it generates categories and sub-categories of Facebook users with shared characteristics or purchasing habits. Additionally, Facebook advertisements can often constitute Facebook users as consumers by displaying advertisements which are deemed to be relevant to a particular group of Facebook users. However, mass "dataveillance" can also be restrictive as such categorization can at times maintain or produce

¹⁷¹ <https://www.facebook.com/help/115180708570932/>.

¹⁷² <https://www.facebook.com/help/236257763148568>.

¹⁷³ M. J. Shaw et al, "Knowledge management and data mining for marketing" (2001) 31(1) *Decision support systems* 127.

¹⁷⁴ E.g. <https://www.facebook.com/ads/audience-insights/people?act=83765283&age=18-&country=US>.

¹⁷⁵ <https://www.facebook-studio.com/news/item/making-digital-brand-campaigns-better>.

¹⁷⁶ <https://www.datalogix.com/privacy/rel-opt-out-confirmation>.

social inequalities.¹⁷⁷ For example, Facebook advertisements which promote high-end products only to Facebook users who spend a specific amount of money in a single transaction can generate social inequalities. Furthermore, the techniques which constitute the identities of Facebook users as consumers can also exclude them from receiving specific advertisements.¹⁷⁸ Thus, particular versions of the marketplace are enacted through the materially heterogeneous connections which generate Facebook advertisements.

Knowledge is key in constructing Facebook users as consumers and rendering them “calculable”¹⁷⁹ as their actions can be observed and measured. For example, the connections generating “Adverts Performance” facilitate the evaluation and graphical representations of Facebook users’ engagement with advertising campaigns. Advertisers can then use such information to further refine their audience for a particular advertisement. This knowledge about Facebook users as consumers are dynamic because this information can change as Facebook users’ behaviors evolve over time or as advertisers refine their targeting options to secure a higher level of user engagement. From this viewpoint, marketplaces are dynamic “achievements” which are produced in the here and now through circulating webs of knowledge, intervention techniques, and interrelations between *actants*.

In more traditional forms of advertising, individuals cannot always contribute to how their identities as consumers are delineated. However, in Facebook, individuals can often actively exercise some control on how their identities are formed by, for example, indicating which advertisements they prefer or preventing certain personal data from being used in advertisements. Crucially, many Facebook users often play important roles in generating multiple information about their identities as consumers by voluntarily sharing data, such as their interests and lifestyle choices, with Facebook and relevant third-parties.

Unlike the Panopticon, where resistance by the inmates seems futile since the Panopticon presents this utopian image of totalizing surveillance which leads to the inmates disciplining themselves, in Facebook, users often actively resist being profiled or being shown specific advertisements by using third-party technologies, such as Adblock to block Facebook advertisements. Facebook users can often seek advice on external websites, such as YouTube, to find out how they can block Facebook advertisements.¹⁸⁰ These resistance practices are arguably instances of “ethical practices” through which Facebook users attempt to negotiate their relationships with rules on advertising.¹⁸¹ By using technologies, such as Adblock, Facebook users are questioning certain Facebook rules, such as the rules prohibiting the use of filtering technologies, and interpret them creatively in ethics of resistance.¹⁸² Additionally, Facebook users are also exercising their agency by resisting certain normalizing forces including only using Facebook tools, such as Privacy Settings, to manage Facebook advertisements.

¹⁷⁷ O. H. Jr. Gandy, “Coming to Terms with the Panoptic Sort” (1996) *Computers, surveillance, and privacy* 132.

¹⁷⁸ E.g., <https://www.facebook.com/business/help/633474486707199>.

¹⁷⁹ N. Rose Nikolas, “Calculable minds and manageable individuals” *History of the Human Sciences* (1988) 179, at 184.

¹⁸⁰ E.g., <https://www.youtube.com/watch?v=-50AiQGGzfk>; <https://www.youtube.com/watch?v=tL1opRsyq5c>; <https://www.youtube.com/watch?v=NND9KTKQdus>.

¹⁸¹ M. Foucault, *The History of Sexuality. The Use of Pleasure. Vol. 2* (1992).

¹⁸² E.g., Term 3 (10) of the Statement of Rights and Responsibilities, <https://www.facebook.com/legal/terms>.

X. CONCLUSION

In this article, my overarching contention has been that we need to move away from the dominant “regulatory” lens to my ANT-Foucauldian Power Lens to understand more comprehensively the complex and dynamism of online environments when a legal right is at risk as well as the multiple power effects generated such cases. This overall assertion is linked to a call for locality *and* heterogeneity when studying online environments. Attending to the relevant local and varied material associations draw our attention to the ephemeral and the fugitive, and to power effects which can always be *otherwise*.

Whilst, pursuing this central argument, I have also argued three additional points. Firstly, I have argued that diverse heterogeneous legal, social and technological human and non-humans actors are connected with one another in the context of data protection and Facebook advertisements. In particular, I have highlighted the dynamism and complexity of the regulatory space in Facebook in the context of data protection and advertisements. I have also emphasized that the protection and/or violation of a personal data rights is an effect generated from specific socio-technical-legal assemblages rather than the outcome of a single *actant* (such as “code” in Lessig’s parlance). Secondly, I have argued multiple and complex power effects are generated in Facebook in the context of advertisements and data protection. Regulatory effects (e.g. protecting personal data rights) can often be one of the power effects. However, other power effects, such as “mass dataveillance” can also be generated from these materially heterogeneous connections. Thirdly, through my analysis of valid consent as a relational achievement, I have argued that the process through which valid consent is obtained in Facebook can often be “routinized”. This suggests that we need to rethink how valid consent is SNS, such as Facebook, and explore alternatives to consent in cases when it is not practical or possible to gain consent.

Generally, this article has explored future lines of research in cyberspace regulation. In what ways do the relevant material heterogeneous configurations - and their power effects - differ from one online platform to another when legal rights are at stake? What are the implications of such distinctions or similarities for cyberspace regulation? There are more possibilities than can be sketched here and these questions need to be explored further in the future. As a concluding thought, it is important to note that we should be wary of generalizations when we reflect conceptually on how cyberspace can or should be regulated. It is crucial for cyberspace regulation debates to take into account the locality, diversity, and fluidity of online environments. We cannot regulate unless we know the particulars of the space in question. Thus, abstractions about cyberspace regulation have to deal with the paradox of generalizations and particulars in such a way that general principles can be derived although their applications are context-dependent.